respective virtual reels. Such movement of reel symbols from one screen to another within a multi-layer display can aid in a more realistic emulation of physical mechanical reels on a processor-based gaming machine. Other details regarding the depiction of simulated reels on a multi-layer display can be found in U.S. patent application Ser. No. 11/858,695, filed on Sep. 20, 2007, and entitled "Realistic Video Reels," which application is incorporated herein by reference in its entirety and for all purposes.

[0068] Various embodiments of the present invention can involve a more realistic emulation of physical reels though additional visual techniques, which can be used on processor-based gaming machines having multi-layer displays as well as those having more traditional displays, such as a simple CRT, LCD, flat panel display, or the like. Such visual techniques can include varying the timings of reel spin lengths as well as successive reel stops, which timing variances may involve sampling the spins of actual physical reels and modeling virtual reel spin times and successive reel stop times after the sampled physical reel spins. Various levels of randomization may also be introduced into such reel spin and reel stop times, so as to more realistically simulate the slightly varying reel spin and reel stop times of actual physical reels. Instead of and/or in addition to gaming reels, similar techniques may be used in the presentation of one or more emulated spinning gaming wheels.

[0069] Various embodiments of the present invention can also involve a more realistic emulation of physical reels though added audio techniques, which audio techniques can be used separately or in combination with one or more of the above visual techniques. Such added audio techniques can include providing audio playback of actual sounds sampled and recorded from rotating physical reels, which replayed sounds can be selected from multiple and/or lengthier sound samplings from mechanical reels that are stored in an associated memory. A separate audio track can be implemented for each virtual reel, and such separate tracks can be directed for play at a plurality of speakers, which play can be stereophonic in nature. Variances in the audio playback can also be similarly randomized, so as to more realistically simulate the slightly varying sounds of actual physical reels in motion. Further details regarding the realistic emulation of reels in a processor-based gaming machine can be found at, for example, copending and commonly owned U.S. patent application Ser. No. 11/858,845 by Williams, et al, entitled "Multimedia Emulation of Physical Reel Hardware in Processor-Based Gaming Machines," which application is incorporated herein by reference in its entirety and for all purposes. It will be readily appreciated that various teachings of this reference with respect to the presentation of gaming reels can be correlated to the presentation of gaming wheels, as may be desired.

Three-Dimensional Payline Applications

[0070] Various embodiments of the present invention relate to the presentation of three-dimensional paylines, such as by way of one or more rotating or moving reels, wheels and/or the like, on one or more video or visual displays of a processor-based gaming machine. This can be accomplished at least in part through the use of a specialized multi-layer display, such as that which is illustrated in FIG. **5** and described herein. Such three-dimensional paylines can be made three-dimensional through a variety of approaches or applications, which approaches or applications may be used separately or in any suitable combination, as desired.

[0071] Under one application, a three-dimensional payline is created by providing payline reel-stops, wheel-stops or other suitable payline stops or designations on a plurality of display screens within an associated multi-layer display. The use of such stops on a plurality of display screens creates a depth component to the payline, such that the payline is then three-dimensional. In various embodiments using this approach, one or more three-dimensional paylines comprising lines having a horizontal component, a vertical component and a depth component are created with respect to a player of an associated game.

[0072] Referring now to FIG. **6**A, a simulated display of an exemplary three-dimensional payline having a horizontal component and a depth component according to one embodiment of the present invention is illustrated in partially exploded front elevation view. Multi-layer display **126** includes presentations or displays made on a front display screen **118***a* and back display screen **118***c* from a multi-layer display device, such as that which is illustrated in FIG. **5** and described herein. Front virtual reels **190***a*, **190***b* and **190***c* are presented on front display screen **118***a*, while back virtual reels **190***d*, **190***e* and **190***f* are presented on back display screen **118***c*. Additional display screens (e.g., a middle display screen) having more virtual reels may also be used, as will be readily appreciated.

[0073] As in the case of many multi-layer display applications, each of virtual reels **190***a*-**190***f* can be at least partially transparent or translucent, such that all virtual reels and the various reel symbols and reel stops thereon may be readily viewed by a player. For purposes of illustration and ease of understanding, the reel symbols shown on each of back virtual reels **190***d*, **190***e* and **190***f* are identical to the reel symbols shown on front virtual reels **190***a*, **190***b* and **190***c*. However, it will be readily appreciated that such identical placement of reel symbols on corresponding front and back virtual reels need not take place, and that a wide variety of other reel symbols and/or reel symbol orders or sequences might also be used.

[0074] As shown, three-dimensional payline **191***a* begins at the cherry reel symbol of front virtual reel **190***a*, and then moves or extends horizontally to the cherry reel symbol of front virtual reel **190***b*. At this point, three dimensional payline **191***a* extends or "jumps" into the screen (i.e., depthwise) from the front screen to the back screen to arrive at the cherry reel symbol of back virtual reel **190***e*. From this point, three-dimensional payline **191***a* then moves or extends horizontally to the cherry reel symbol of back virtual reel **190***f*, at which point the three-dimensional payline then ends. Although the three-dimensional payline **191***a* only extends or jumps once from one display screen to another, it will be readily appreciated that additional extensions, moves or jumps between display screens may also be added for a given three-dimensional payline. Because three-dimensional payline **191***a* moves only in horizontal and depthwise directions, and does not extend above or below a general center line of the overall display, this three-dimensional payline might not be considered to have a vertical component.

[0075] Moving next to FIG. **6**B, a simulated display of an alternative exemplary three-dimensional payline having horizontal, vertical and depth components according to another embodiment of the present invention is similarly illustrated in partially exploded front elevation view. Similar to the fore-